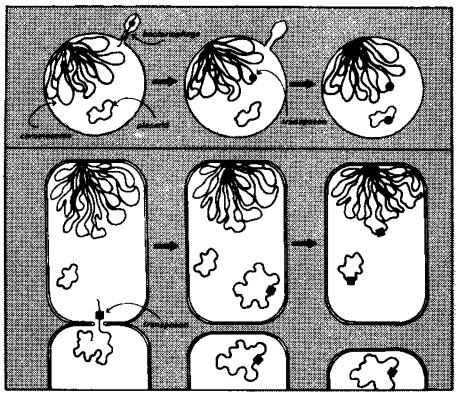
ENGINEERED ORGANISMS IN THE ENVIRONMENT SCIENTIFIC ISSUES

Proceedings of a Cross-Disciplinary Symposium Held in Philadelphia, Pennsylvania, 10–13 June 1985

Editors:

Harlyn O. Halvorson
David Pramer
Marvin Rogul



The development of recombinant DNA and other genetic techniques, along with an increased awareness of the impact of humanity on the environment, has led to debate on the benefits and risks of releasing the living products of these techniques into the environment.

How can such organisms be designed for maximum benefit and minimum risk? How can these qualities be predicted and assessed?

These issues were addressed by distinguished scientists from a variety of fields—ecology, genetics, microbiology, molecular biology—at a symposium organized by ASM in collaboration with seven other scientific societies. Their contributions are presented in *Engineered Organisms in the Environment: Scientific Issues.*

Focus on Design and Risk-Benefits

Case history presentations cover the development of several projects that are close to practical application. The ecology of the introduction of organisms into a new environment is examined from many angles. Papers and discussions focus on assessment techniques and risk analysis.

The volume follows the symposium sessions:

- State of the Art: Case Histories
- Genetic Variation and Gene Transfer
- Other Introductions into the Environment
- Biological Responses to Perturbation: Genome to Ecosystem
- Future Trends: Toward a Predictive Capability

Essential Reading for Scientists and Laymen

Nonscientists involved in public policy on biotechnology will be interested in the lay summary of the book, written by Bernard Dixon, as well as the Rapporteur session summaries and the floor discussions in the book itself.

Genetically engineered organisms, their development and their wise use, are the concern of many fields ranging from macroecology to molecular biology. A free flow of information among related scientific disciplines is essential. *Engineered Organisms in the Environment: Scientific Issues* is a significant contribution to this important dialogue.

Publication date: December 1985
240 pages, illustrated, index
Paperback (ISBN 0-914826-83-2), including lay summary: $18.00
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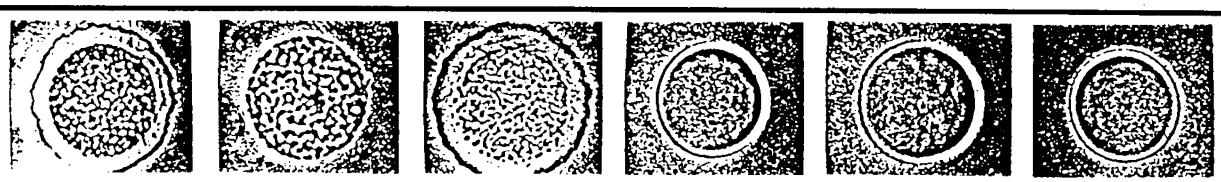

Molecular Biology of Microbial Differentiation

Proceedings of the Ninth International Spores Conference, Asilomar, California, 3-6 September 1984

Editors: **James A. Hoch**
Peter Setlow

Unlike past conferences in this series, the Ninth International Spores Conference held in September 1984 focused on one exciting and rapidly progressing area of bacterial development: the molecular biology of the sporulation and germination processes.

Symposium presentations from this important meeting and review articles have been compiled and edited for ready reference by James A. Hoch (Division of Cellular Biology, Research Institute of Scripps Clinic) and Peter Setlow (Department of Biochemistry, University of Connecticut Health Center).

Molecular Biology of Microbial Differentiation presents the latest conclusions in the molecular biology of differentiation in higher procaryotes. Many of the contributions deal with the basic molecular biology and the sporulation of *Bacillus subtilis.*

Keep pace with the progress in spore research

Thirty-eight excellent articles cover these major areas:

- Molecular Cloning and Genetics of Sporulation and Germination Genes
- Characterization of Cloned Genes and Their Regulatory Signals
- Control of Developmental Transcription
- Metabolic Control of Gene Expression and Sporulation
- Endotoxin Formation in Sporulating Organisms
- Microbial Differentiation Systems

A valuable reference tool

This new book will be an invaluable resource for every researcher and student of spore science.

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Molecular Biology of Microbial Differentiation.

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HIGH-TECHNOLOGY ROUTE TO

VIRUS VACCINES

Editors:
Gordon R. Dreesman
Judith Gunn Bronson
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Proceedings of the First Annual Southwest Foundation for Biomedical Research International Symposium, Houston, Texas, 8–10 November 1984

Announcing a new reference on virus vaccines

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A new publication from the American Society for Microbiology, *High-Technology Route to Virus Vaccines* includes presentations from the First Annual Southwest Foundation for Biomedical Research International Symposium. This volume presents the most timely reports by leaders in key areas of immunization.

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High-Technology Route to Virus Vaccines explores the development and application of virus vaccines, including:

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- Potential of synthetic peptides as vaccines
- Use of anti-idiotype antibodies to induce specific antiviral immunity

The status of immunization against viral diseases is explored, examining specific diseases affecting humans (hepatitis B, influenza, and rabies) and animals (foot-and-mouth disease and pseudorabies).

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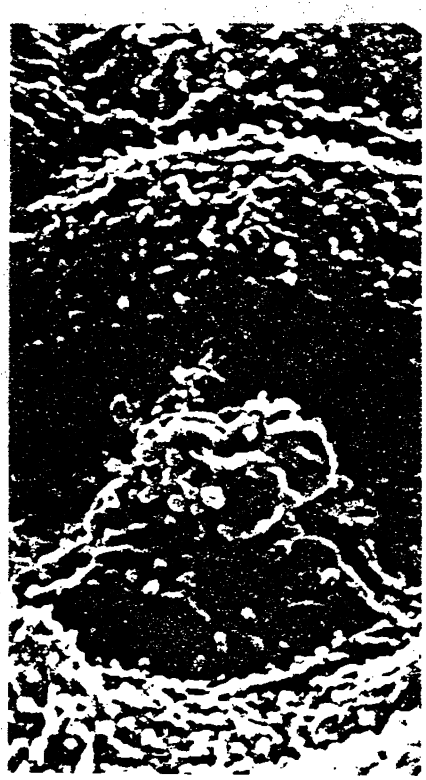
The Pathogenic Neisseriae

Proceedings of the Fourth International Symposium on the Pathogenic Neisseriae, Pacific Grove, California

Editor:
Gary K. Schoolnik
Coeditors:
Geo. F. Brooks, Stanley Falkow, Carl E. Frasch, Joan S. Knapp, J. Allen McCutchan, and Stephen A. Morse



The Fourth International Symposium on the Pathogenic Neisseriae focused on new work on the genetics, immunobiology, epidemiology, and control of *N. gonorrhoeae* and *N. meningitidis*, applying the latest advances in molecular biology. These studies, which contribute to fundamental concepts about the pathogenic strategy of mucosal pathogens, are presented in *The Pathogenic Neisseriae*.

The articles reflect significant progress in the cloning of genes encoding gonococcal virulence determinants, in creating and employing useful libraries of monoclonal antibodies to gonococci to further define gonococcal epidemiology, in investigating a novel mechanism for epithelial cell invasion by gonococci and meningococci, and in developing a group B meningococcal vaccine. Among other important findings in the book is the revelation, through visually remarkable electron micrographs, of an apparently orderly and analogous pathogenic sequence for gonococcus-human fallopian tube and meningococcus-nasal epithelium interactions.

Sections in the book include:

- Epidemiology of *Neisseria gonorrhoeae* Infections
- Neisserial Genetics
- Cell Surface Proteins of *Neisseria gonorrhoeae*: Pathogenic Roles and Implications for Vaccine Development
- *Neisseria gonorrhoeae* Pathobiology: Peptidoglycan, Lipopolysaccharide, and Iron-Regulated Proteins
- *Neisseria gonorrhoeae* Pathobiology: Interactions with Serum and Polymorphonuclear Leukocytes
- *Neisseria meningitidis:* Epidemiology, Pathobiology, and Vaccine Development

IMPORTANT READING FOR THE LAB OR CLINIC

The book will be of particular interest to scientists studying microbial pathogenesis, genetic mechanisms of antigenic variation, new strategies for vaccine development, and the cell surface of procaryotes. It will be a valuable reference tool for infectious disease clinicians and public health professionals and for university, medical school, and industrial biotechnology laboratories.

ORDER THIS VALUABLE PUBLICATION FOR THE LABORATORY OR LIBRARY SOON.

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